100

BPDU MESSAGE HEADER	— 102

104 {	PROTOCOL ID	— 106
	PROTOCOL VERS. No	— 108
	BPDU TYPE	— 110
	FLAGS	— 112
	ROOT ID	— 114
	ROOT PATH COST	— 116
	BRIDGE ID	— 118
	PORT ID	— 120
	MESSAGE AGE	— 122
	MAX. AGE	— 124
	HELLO TIME	— 126
	FORWARD DELAY	— 128

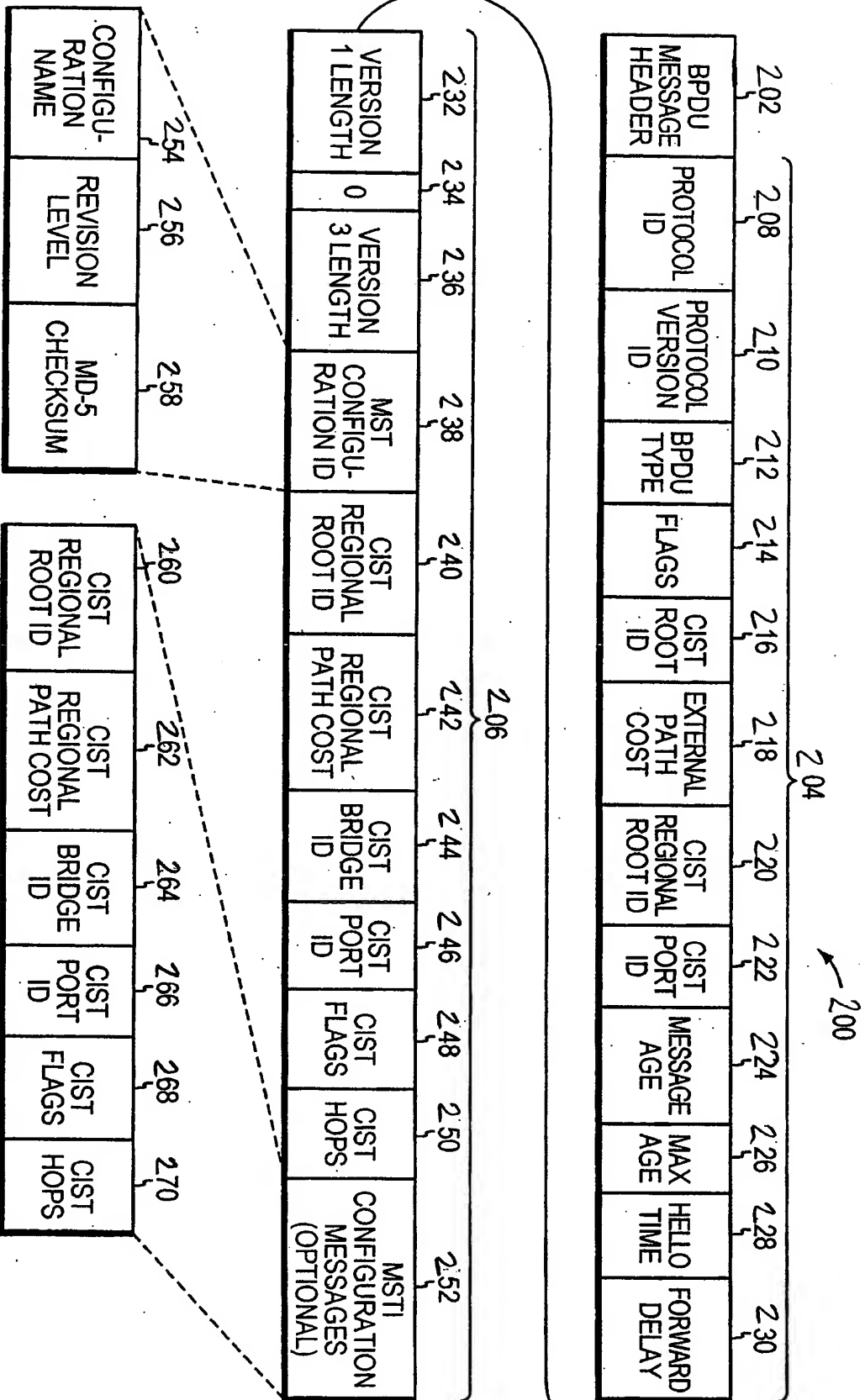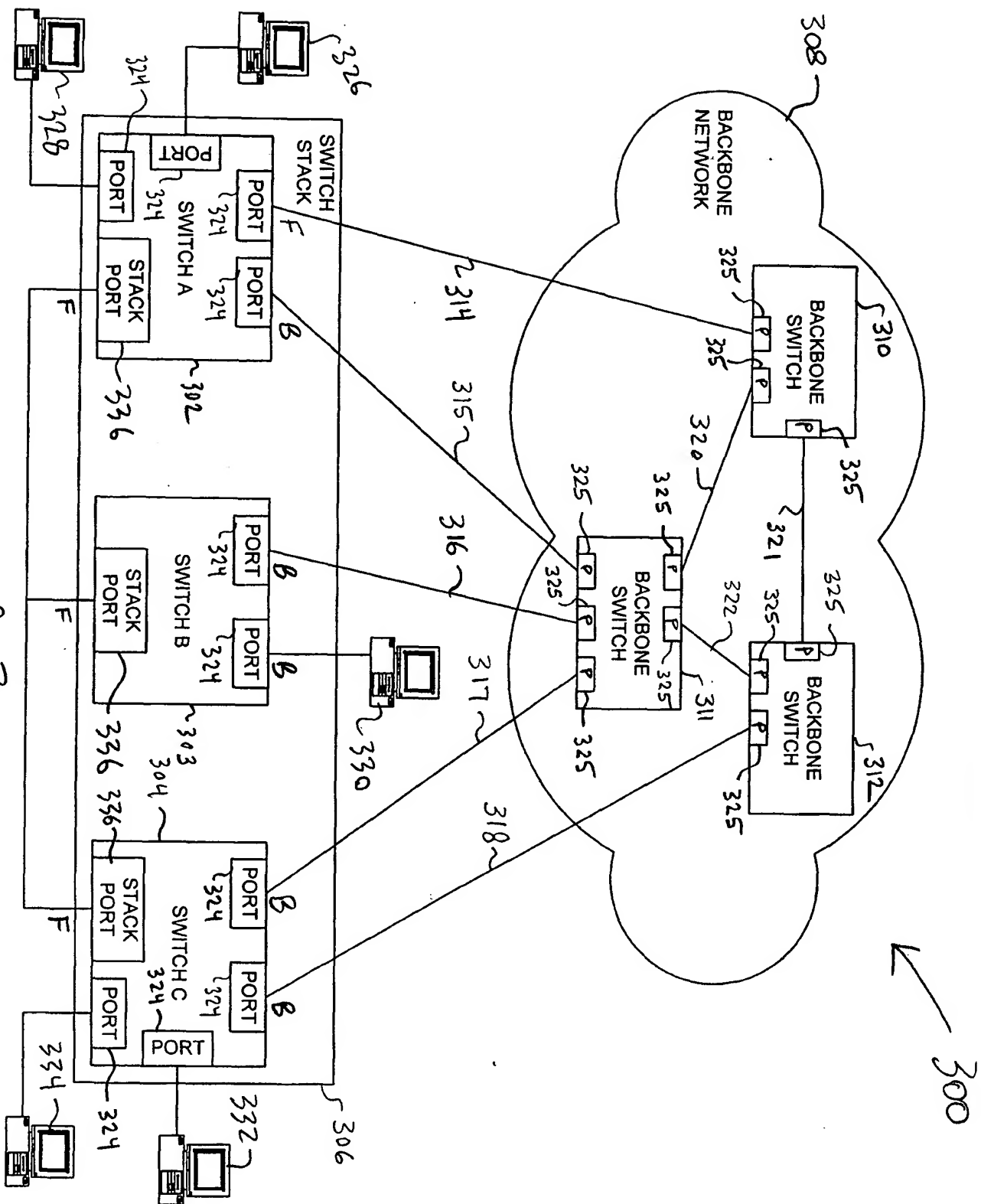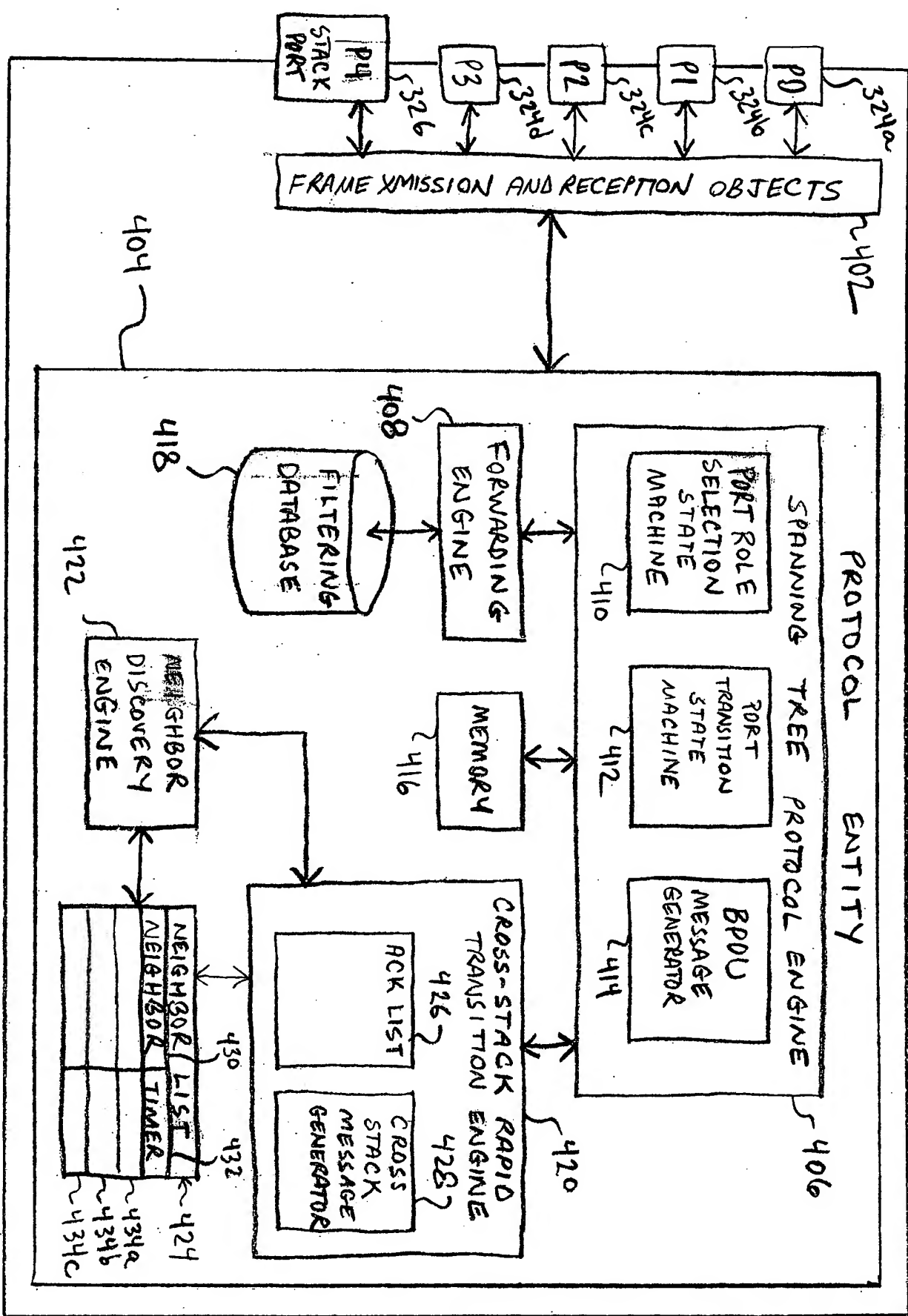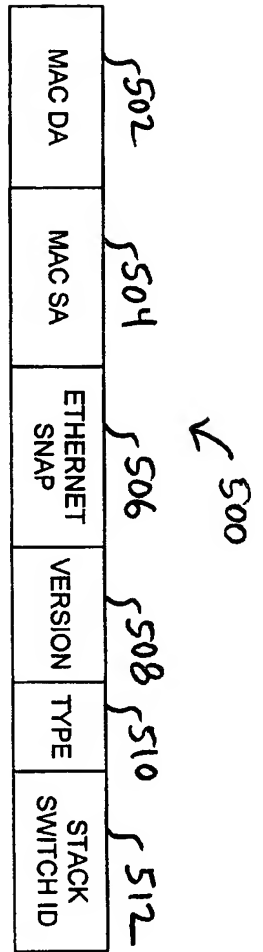| TOPOLOGY CHANGE	— 130
PROPOSAL	— 132
PORT ROLE	— 134
LEARNING	— 136
FORWARDING	— 138
AGREEMENT	— 140
TOPOLOGY CHANGE ACK.	— 142

FIG. 1
(PRIOR ART)

FIG. 2 (PRIOR ART)

FIG. 3

FIG. 4

STACK PORT P4 324a
326
P3
324d P2
324c P1
324b P0

402 FRAME XMISSION AND RECEPTION OBJECTS

302

404

PROTOCOL ENTITY

SPANNING TREE PROTOCOL ENGINE 406

PORT ROLE SELECTION STATE MACHINE 410

PORT TRANSITION STATE MACHINE 412

BPDU MESSAGE GENERATOR 414

MEMORY 416

FORWARDING ENGINE 408

FILTERING DATABASE 418

CROSS-STACK RAPID TRANSITION ENGINE 420

ACK LIST 426

CROSS STACK MESSAGE GENERATOR 428

NEIGHBOR DISCOVERY ENGINE 422

NEIGHBOR LIST 430
NEIGHBOR 434a
NEIGHBOR 434b
TIMER 432 434c
424

22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS
AMPAD

FIG. 5

500

MAC DA	MAC SA	ETHERNET SNAP	VERSION	TYPE	STACK SWITCH ID
502	504	506	508	510	512

FIG. 6

600

MAC DA	MAC SA	ETHERNET SNAP	VERS	TYPE	SENDING BRIDGE	DESIGNATED BRIDGE	INSTANCE ID	CST ROOT ID	ROOT PATH COST	DESIGNATED PATH COST
602	604	606	608	610	612	614	616	618	620	622

INSTANCE ROOT ID	INSTANCE ROOT PATH COST	PORT ID
624	626	628